Challenges of Applying Adaptive Management to Restoration of Puget Sound Nearshore Ecosystems: Misconception and Irreversibility

Thomas Mumford, Washington Department of Natural Resources*
Charles "Si" Simenstad, University of Washington

Keywords: adaptive management, nearshore, restoration, Puget Sound

In concept, the bright promise of adaptive management would appear to be an increasingly pervasive component of Puget Sound nearshore restoration; in reality, application of the more rigorous principles of adaptive management is far less than rigorous. We are neither evaluating the functionality of restoration, improving the function of faltering restoration or even building a better understanding of what works and what doesn't work. Uncertainties associated with the technical and scientific backbone required to restore nearshore ecosystems demands the experimental essence of adaptive management. However, token "adaptive" monitoring of independent, "opportunity-based" restoration projects typically cannot meet that need. Conversely, it is unrealistic to expect opportunity-based restoration to be designed as scientifically rigorous experiments that can be modified or reversed to test alternative restoration hypotheses in the face of initial contrary results. We suggest that adaptive management in a comprehensive restoration program of Puget Sound nearshore ecosystems will have to be applied as dedicated demonstration "testbed" experiments dedicated to resolving critical uncertainties upon which the success of this Program hinges. Adaptive management principles should also be applied not only to program projects, but also across a wider range of restoration projects and programs.